

NEWCASTLE-UNDER-LYME  
RURAL DISTRICT COUNCIL.

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ANNUAL REPORT

—OF THE—  
MEDICAL OFFICER OF HEALTH,

For the Year 1904.

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NEWCASTLE-UNDER-LYME,  
FEBRUARY, 1905.

GENTLEMEN,

In submitting my Annual Report for the year 1904, I am pleased to record a continued low death-rate. The figures work out at an average for the whole district of 12.20 per 1000 of the population, as against 12.16 in 1903.

The average death-rate for the previous 10 years as shown on page 8 is 13.29.

From the subjoined table it will be observed that the maximum death-rate (15.88) was at Madeley, while the lowest (3.61) was at Clayton. In 1903 the death-rate in Madeley (15.70) was also higher than that of any other parish, while the lowest (3.15) was at Whitmore.

The death-rate for the various parishes bears the following relation to the population :—

	Population Census, 1901.	Estimated Population to middle of 1904.	Number of Deaths.	Death-rate per 1000 for 1904	Death-rate per 1000 for 1903.
Balsterley	...	253	260	2	7.69
Betley	...	837	869	5	5.75
Chorlton	...	387	393	3	7.65
Maer	...	436	444	5	11.26
Whitmore	...	308	320	5	15.62
Clayton	...	269	277	1	3.61
Keele	...	1114	1137	13	11.43
Madeley	...	2909	3021	48	15.70
Total	6513	6721	82 Av'age	12.20	12.16

In 1903 the deaths numbered 81, the death-rate was 12.16

1902	„	89	„	13.49
1901	„	99	„	15.16
1900	„	94	„	13.04
1899	„	81	„	11.29
1898	„	78	„	11.01
1897	„	98	„	14.06
1896	„	98	„	14.19
1895	„	88	„	13.38
1894	„	100	„	15.48
1893	„	113	„	17.75
1892	„	111	„	17.79
1891	„	78	„	12.60

These figures are calculated on the estimated population in the middle of each year.

During the year 1904 there were seven Coroner's Inquests held in the district. Four of the deaths were in Madeley Parish, and the Coroner's Juries attributed them to the following causes:—

1. Heart Failure
2. Heart Disease
3. Accidental fall of roof in pit
4. Congestion of lungs and pleurisy set up by being accidentally run over by a seed drill.

Three of the deaths were in Keele Parish, and in these the Juries attributed them to

5. Accidentally crushed between wagons
6. Suicide by drowning
7. Injury to head.

In 1903 there were five deaths from accidental causes, all in Madeley Parish.

Deaths according to age:—

Under 1 year	...	20
1 and under 5	...	9
5 „ 15	...	1
15 „ 25	...	4
25 „ 65	...	24
65 and upwards	...	24
		—
	Total	82

In 1903 the deaths according to age were as follows :—

Under 1 year	...	22
1 and under 5	...	6
5 „ 15	...	6
15 „ 25	...	3
25 „ 65	...	23
65 and upwards	...	21
		—
	Total	81

The actual infant death-rate is 114.28 per 1000 of the births registered, as against 127.16 in 1903, and 130.20 in 1902. The average for the last 10 years is 117.73. The slight improvement that has taken place, as compared with the two previous years is a hopeful sign, but the infant mortality continues far too high. The agencies at work in keeping up this high mortality in the infant death-rate, are chiefly improper and tainted food, and to a less extent foul air of overcrowded houses. Some of the causes of infant mortality are due to neglect, and indifference, on the part of the parents, but, perhaps many more are due to ignorance. The great remedy for this state of affairs I consider is to be found in the greater practical knowledge of the nutritive power of various kinds of food, and this could easily be imparted to the elder children in elementary schools, and I am sure that much good would result to the next generation thereby.

The number of births was as follows :—

			Population		Estimated Population to middle of 1904	Increase
			1901	1891		
Balsterley	{	Males 12	253	273	260	7
Betley	{	Females 14	837	827	869	32
		—	26			
Chorlton	{	Males 9	387	373	393	6
Maer			436	389	444	8
Whitmore	{	Females 13	308	318	320	12
		—	22			
Clayton	{	Males 63	269	304	277	8
Keele			1114	1090	1137	23
Madeley	{	Females 64	2909	2904	3021	112
		—	127		Increase 208	

As there were 82 deaths, 93 persons constitute the natural increase for the year 1904. For the year 1903, the increase of the population was 92.

The number of reported cases under the Infectious Diseases Notification Act since 1892 is shown in the following table:—

	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	
Erysipelas	..	40	64	56	54	48	26	21	19	7	12	8	6	7
Enteric Fever	..	24	9	3	6	7	23	13	4	15	11	..	1	1
Scarlatina	..	12	46	27	208	46	5	127	94	32	24	32	14	47
Membranous Croup		3	1	4	3	5	1	2	1	..	..	..	..	..
Diphtheria	..	2	2	3	4	8	16	18	18	9	18	7	5	5
Puerperal Fever	..	1	..	1	1	.	..	2	1	2	..	2	1	2
Continued Fever	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Total	82	122	94	277	114	71	183	137	65	65	49	27	62	

1. *Erysipelas*.—The number of reported cases is 7, as compared with 6 in the previous year. The cases were distributed as follows:—5 at Madeley, 1 at Keele, and 1 at Betley. One death was registered from this cause in an old man at Madeley, aged 82.

2. *Diphtheria*.—Five cases were reported as compared with 5 in 1903. Four were in Madeley Parish and 1 in Betley Parish. A fatal case was registered in Madeley, in a girl aged 7 years.

3. *Scarlatina*.—The number of reported cases is 47, as compared with 14 in the previous year. The cases were distributed as follows—Madeley 3, Keele 14, Clayton 1, Maer 4, Whitmore 3, and Betley 22. It is satisfactory to note that out of this large number of cases of Scarlatina there was not a single death.

4. *Puerperal Fever*.—One case was reported from Madeley, and one from Maer. Both ended with a fatal result. The death in the Maer case took place after the close of the year.

5. *Enteric Fever*.—One case was reported from Madeley, which was mild in character—it soon got well.

The total number of Infectious Cases reported was 62, as compared with 27 in the previous year. The increase was almost entirely due to mild epidemics of Scarlet Fever at Betley and Madeley. At Madeley the outbreak was practically confined to the Onneley neighbourhood. At Onneley the School was closed on the 17th of November, and on

the 25th of November, the Betley School was closed. At Betley there were many cases of Measles among young children as well as Scarlet Fever. The Schools were closed, with the satisfactory results that the diseases in question soon commenced to abate. This shows the importance to be derived from the enforcement of the Notification Act.

The Prevention of Infectious Diseases is a matter of great importance. In all cases where overcrowding exists, and where insanitary surroundings are present, it is the bounden duty of those in authority to remedy this state of things. It is well-known that the healthy and well-nourished and well-housed person is better able to ward off attacks of disease of this kind than those who are not in these favourable conditions. Once disease has broken out separation and isolation of the sick from the healthy is of primary importance. It is sometimes said that children are certain to catch most of the common infectious diseases sooner or later, but it must be borne in mind that as a child grows older the risk from infection becomes less. Further, the younger the child is the more likely is the result to be fatal. Scarlet Fever for instance is at least three times as fatal in children under 5 years of age as in those between 5 and 10 years. In the majority of houses where there was infectious disease your Sanitary Inspector disinfected the sick room, but in a widely scattered Rural District the difficulties in this respect are very considerable.

The water supply in the Parishes of Madeley and Keele as supplied by the Staffordshire Potteries Water Works continues satisfactory. Practically all the houses in Madeley and Leycett are now connected with the main system.

At Betley the water supply is entirely from wells which are liable to pollution from the drains. This shows the importance and desirability of having the water analysed from time to time, and of course in the other parts of the district the same remark applies with equal force, where the supply is from wells.

The Sewerage and Sewage Disposal Works at Madeley are now complete, and the majority of the houses are connected to the main sewers.

The scheme includes the drainage of Madeley Heath, Little Madeley, Middle Madeley, and Great Madeley, by gravitation to the out-fall works, situate at the rear of Madeley Mill.

The Purification Works consist of two septic tanks, and six aerating bacterial filters, they are capable of serving a population of one thousand six hundred, and dealing with a maximum flow of seventy two thousand gallons per day. In addition to this storm water up to a further volume of seventy two thousand gallons per day will be dealt with on special storm water filters. Each septic tank is fifty four feet long by ten feet wide by seven feet deep below the springing of the roof arch. At ordinary water level each tank holds 20,250 gallons. Their united capacity is 40,500 gallons. The average superficial area of each of the six filters is  $463\frac{1}{2}$  square feet, and their united area is 2,781 square feet; they are filled to a depth of three feet with furnace clinker broken to pass through a half-inch screen.

The sewage passes without being screened through the over-flow chamber, and grit chambers, into the septic tanks, which retain the solid matter contained in the sewage. The organic matter is acted upon by liquefying micro-organisms present, by which it is broken down into simpler substances capable of being dealt with by filtration.

The effluent freed of solids in suspension passes from the effluent channel to the gear chambers from which the filters are supplied.

Five of the six filters will ordinarily form a working set, each in turn being thrown out of work for a few days, for complete rest, and aeration. All six filters will be worked during wet weather. The effluent remains in each filter for about an hour, during which the dissolved impurities will be oxidised by the bacteria attached to the surfaces of the filtering material.

In accordance with the rules of the Local Government Board, the filtered effluent is utilized on an irrigation area, which is laid out to receive it.

The question how best to dispose of the sewage at Betley is now under the consideration of the Council.

That portion of Silverdale which is in the Parish of Keele, is now drained by main sewers, which are connected to the sewers belonging to the Wolstanton United Urban District Council. This arrangement is I believe working satisfactorily.

The Vaccination Act, 1898, continues to work in a most satisfactory

way throughout the district. There is practically no opposition to the working of the Act. The necessity of making four distinct marks in performing the operation of vaccination is most important, otherwise the protection against Small Pox is not so secure. If vaccination and re-vaccination were only efficiently carried out throughout the entire country I consider the provision and maintenance of Small Pox Hospitals would not be necessary.

No case of Small Pox was reported during the year. Any case that may arise will be provided for by your incorporation with the North Staffordshire Joint Small Pox Hospital Board, whose Hospital is situate at Bucknall.

Under the Factories and Workshops Act, 1901, there are 11 workshops in the Parish of Betley, 7 in Madeley, 3 in Keele, 2 in Whitmore, and 1 in Maer. All these have periodically been inspected and found to be kept in a satisfactory and sanitary condition and no proceedings have been found necessary by the Government Inspector.

New Bye-Laws were adopted in 1902, and the various premises effected thereby have been duly registered, and inspected from time to time, and where necessary the regulations enforced.

New Buildings :—No new building has been erected during the past year.

Many nuisances, such as foul conditions, structural defects, defective traps, and so on, were inspected and reported on during the year. Instructions have been given for their abatement which generally have been carried out, and in some cases proceedings have been taken against defaulters in this respect in order to enforce the requirements of the Council.

Appended are the usual statistical tables.

R. H. DICKSON,

Medical Officer of Health.

TABLE 1.  
NEWCASTLE-UNDER-LYME RURAL DISTRICT. (For whole district.)

Year.	Population esti- mated to middle of each year.	Births. Number.	Rate.* Number.	Deaths under one year of age. Rate per 1600 births registered.	Deaths at all ages Total. Number.	Rate.* Deaths of residents registered beyond district. Number.	Deaths at all ages. Nett Rate.* Number.
1894	6456	187	28.96	20	106.95	100	15.48
1895	6575	215	32.69	20	93.02	88	13.38
1896	6904	188	27.23	26	138.29	98	14.19
1897	6967	188	26.98	26	138.29	98	14.06
1898	7079	175	24.72	24	137.14	78	11.01
1899	7171	170	23.70	16	94.11	81	11.29
1900	7205	186	25.81	15	80.64	92	12.76
1901	6530	190	29.09	25	131.57	99	15.16
1902	6594	192	29.11	25	130.20	89	13.49
1903	6661	173	25.97	22	127.16	81	12.16
Averages for years 1894—1903.							
	6814	186	27.42	21	117.73	90	13.29
1904	6721	175	26.03	20	114.28	82	12.20

\* Rates calculated per 1000 of estimated population.

Area of District in acres (exclusive of area covered by water) 19,597.

Total population at all ages 6,513. Number of inhabited houses 1335  
Average number of persons per house 4.87. (At Census of 1901.)

TABLE 2. NEWCASTLE-UNDER-LYME RURAL DISTRICT.

Locality.	Year.	Balterley and Betley Parishes			Chorlton, Maer and Whitmore Parishes.			Clayton, Keele and Madeley Parishes.					
		Deaths at all ages.	Deaths under 1 year.	Population estimated at middle of each year.	Deaths at all ages.	Deaths under 1 year.	Population estimated at middle of each year.	Deaths at all ages.	Deaths under 1 year.	Population estimated at middle of each year.			
1894	...	1149	37	17	1	1091	25	18	1	4216	125	65	18
1895	...	1161	26	13	4	1105	27	16	4	4309	162	59	12
1896	...	1161	34	21	5	1114	30	11	2	4629	124	66	19
1897	...	1165	19	15	8	1124	23	17	4	4678	146	66	14
1898	...	1182	18	9	1	1136	30	15	4	4761	127	54	19
1899	...	1190	26	11	3	1148	22	10	—	4833	122	60	18
1900	...	1199	34	13	2	1157	27	10	2	4849	125	71	11
1901	...	1094	31	15	2	1135	30	16	4	4301	129	68	19
1902	...	1103	29	15	4	1145	23	16	4	4346	140	58	17
1903	...	1114	30	10	2	1152	23	10	2	4395	120	61	18
Averages of years 1894 to 1903.		1151	28	14	3	1130	26	14	2	4531	132	62	16
1904	...	1129	26	7	1	1157	22	13	2	4435	127	62	17

TABLE 3. NEWCASTLE-UNDER-LYME RURAL DISTRICT.  
Cases of Infectious Diseases Notified during the year 1904

Notifiable Diseases.	Cases Notified in Whole District at Ages—Years							Total cases Notified in each Locality.		
	At all ages.	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 & Upwds.	Betley	W'more	Made'y
	1	2	3	4	5	6	7	8	9	
Diphtheria ...	5	...	...	3	1	1	...	1	...	4
Erysipelas ..	7	...	...	...	1	5	1	1	...	6
Scarlet Fever	47	1	7	34	...	5	...	22	7	18
Enteric Fever	1	...	...	1	...	...	...	...	...	1
Puerperal Fever	2	...	...	...	1	1	...	...	1	1
Totals ..	62	1	7	38	3	12	1	24	8	30
One Scarlet Fever case removed to hospital.										

TABLE 4. NEWCASTLE-UNDER-LYME RURAL DISTRICT.  
Causes of, and Ages at Death, during Year 1904

Causes of Death.	All Ages	Deaths in whole District at subjoined Ages,						Deaths in Localities at all Ages.		
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Bet'y.	W'more.	Ma'ley
	1	2	3	4	5	6	7	8	9	
Whooping Cough ..	3	..	3	..	..	..	..	..	..	3
Diphtheria and Membranous Croup	1	..	..	1	..	..	..	..	..	1
Croup ..	1	..	1	..	..	..	..	..	..	1
Enteritis ..	1	1	..	..	..	..	..	..	..	1
Puerperal Fever ..	1	..	..	..	1	..	..	..	..	1
Erysipelas ..	1	..	..	..	..	..	1	..	..	1
Other septic diseases	1	..	..	..	1	..	..	..	..	1
Phthisis ..	3	2	..	..	1	..	..	..	..	1
Other tubercular diseases ..	2	..	..	..	..	..	2	..	..	2
Cancer ..	7	..	..	..	..	5	2	..	3	4
Bronchitis ..	9	2	1	..	..	1	5	..	2	7
Pneumonia ..	5	..	1	..	..	2	2	..	2	3
Other diseases of respiratory organs	1	..	..	..	..	1	..	..	..	1
Premature Birth ..	1	1	..	..	..	..	..	..	..	1
Heart Diseases ..	8	..	..	..	1	5	2	3	..	5
Accidents ..	3	..	..	..	..	3	..	..	..	3
Suicides ..	1	..	..	..	..	1	..	..	..	1
Convulsions ..	7	7	..	..	..	..	..	1	2	4
Senile Decay ..	7	..	..	..	..	..	7	2	..	5
All other causes ..	19	7	3	..	..	6	3	1	1	17
All causes ..	82	20	9	1	4	24	24	7	13	62

## Factories, Workshops, Laundries, Workplaces and Homework.

Workshops (including Workshop Laundries) 14 inspections, 2 Written Notices.

*SUMMARY of SANITARY WORK done in the Nuisance Inspector's Department during the year 1904, in the Rural District of Newcastle.*

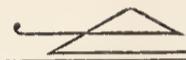
		Inspections and Observations made	Formal Notices by Authority	Nuisances Abated after Notice
Dwelling-Houses and Schools	Foul Conditions ...	...	19	19
	Structural Defects ...	256	23	21
	Overcrowding ...		3	3
	Unfit for Habitation ...		1	1
	Lodging Houses ...			
	Dairies and Milkshops ...	20	1	1
	Cowsheds ...	50	10	10
	Bakehouses ...	14	2	2
	Slaughter-houses ...	8		
	Canal Boats ...			
	Ashpits and Privies ...	212	41	41
	Deposits of Refuse and Manure ...	8	2	2
House Drainage	Water Closets ...	...		
	Defective Traps ...			
	No Disconnection ...	298	204	200
	Other Faults ...			
	Water Supply ...	12	3	1
	Pigsties ...	26	8	8
	Animals improperly kept ...			
	Offensive Trades ...	6		
	Smoke Nuisances ...	4		
	Other Nuisances ...			
	Totals ...	914	317	309

Seizures of Unwholesome Food ...	...	...
Samples of Food taken for Analysis ...	...	...
,,     ,,     found Adulterated ...	...	...
,,     ,,     of Water taken for Analysis ...	...	...
,,     ,,     condemned as unfit for use ...	...	2
		1

**Precautions against Infectious Disease.**

Lots of Infected Bedding Disinfected or Destroyed ...	...	...
Houses Disinfected after Infectious Disease ...	...	...
Schools     ditto     ditto		8
Prosecutions for not Notifying Existence of Infectious Disease.		
Convictions     ditto     ditto	...	
Prosecutions for Exposure of Infected Persons or Things	...	
Convictions     ditto     ditto	...	

ARTHUR E. JONES, Inspector of Nuisances.



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